

REMARKS

The Examiner has rejected claims 1-17 under 35 U.S.C. 103(a) as being unpatentable over Keldsen et al ("Keldsen") in view of Tamaki et al ("Tamaki"). In contradistinction to Applicants' claimed invention Keldsen shows single coaxial cables 24 coupled at one end 30 to a slot-and-pad connection element on a circuit board 12. The connection element has an elongated slot 34 having a flat stop end 36 perpendicular to the major surface 40 of the board. The slot may be positioned to open to a board edge rather than being terminated at a rounded end 42. The slot is further defined by opposed parallel sides 44, 46 that extend along its length, and the slot is conductively plated except for the stop end. A contact pad 60 functions as a terminal of a microstrip line and extends away from the slot on the surface of the board. The stripped conductor 76 of the cable is connected to the conductive pad and a portion of the outer conductor 74 is received in the slot and soldered to a conductive margin 56 around the periphery of the slot which is electrically connected to a ground plane 62 internal to the board via lateral throughholes 65 and the exposed ground plane in pockets 50, 52. It is noted that the slot of Keldsen has no bottom, i.e., it extends through the board.

Tamaki discloses a single coaxial cable 107 coupled to a multi-layer substrate 301 having on an end portion 403 an exposed connection portion 204 with sides and a bottom, the bottom being an exposed ground 104. An inner conductor 108 is connected to an exposed portion 109 of an inner conductor 102 and the outer

conductor 112 is connected to the bottom. Combining Tamaki with Keldsen replaces the slot 34 of Keldsen with the exposed connection portion 204 of Tamaki which has a ground plane along the bottom. In such a combination there is no need for through-holes as the outer conductor is already in contact with a conductive ground sheet.

Applicants recite in claim 1 a circuit board 12 having a recessed portion 28 open to a front edge 32 and having a major surface 26 with conductive pads 24, with the recessed portion having a stop surface 30, side walls 34 and a bottom surface 40 with a conductive layer. The recessed portion is wide enough to receive a multiple conductor ribbon cable 14 having a plurality of first conductors 22 and associated second conductors 18. The first conductors are received by the conductive pads on the major surface and the second conductors are received by the conductive layer on the bottom surface. Claim 2 then recites a conductive sheet 46 spaced from the major surface and the bottom surface with plated through-holes 38 extending through the bottom surface to connect the conductive layer to the conductive sheet. The references teach a cut-out or recess for each coaxial cable when there is more than one, which is not possible when using a multiple conductor ribbon coaxial cable due to the close spacing of the coaxial cables in the ribbon array. Inasmuch as neither reference is specifically directed to a multiple conductor ribbon coaxial cable, and the combination of references eliminates the need for vias or plated through-holes, Applicants submit that claims 1 and 2 and claims dependent therefrom are not obvious to one of ordinary skill in the art over Keldsen in view of Tamaki.

For similar reasons claims 7-17 also are deemed to be allowable as being



nonobvious to one of ordinary skill in the art over Keldsen in view of Tamaki.

In view of the foregoing remarks allowance of claims 1-17 is urged, and such action and the issuance of this case are requested.

Respectfully submitted,

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